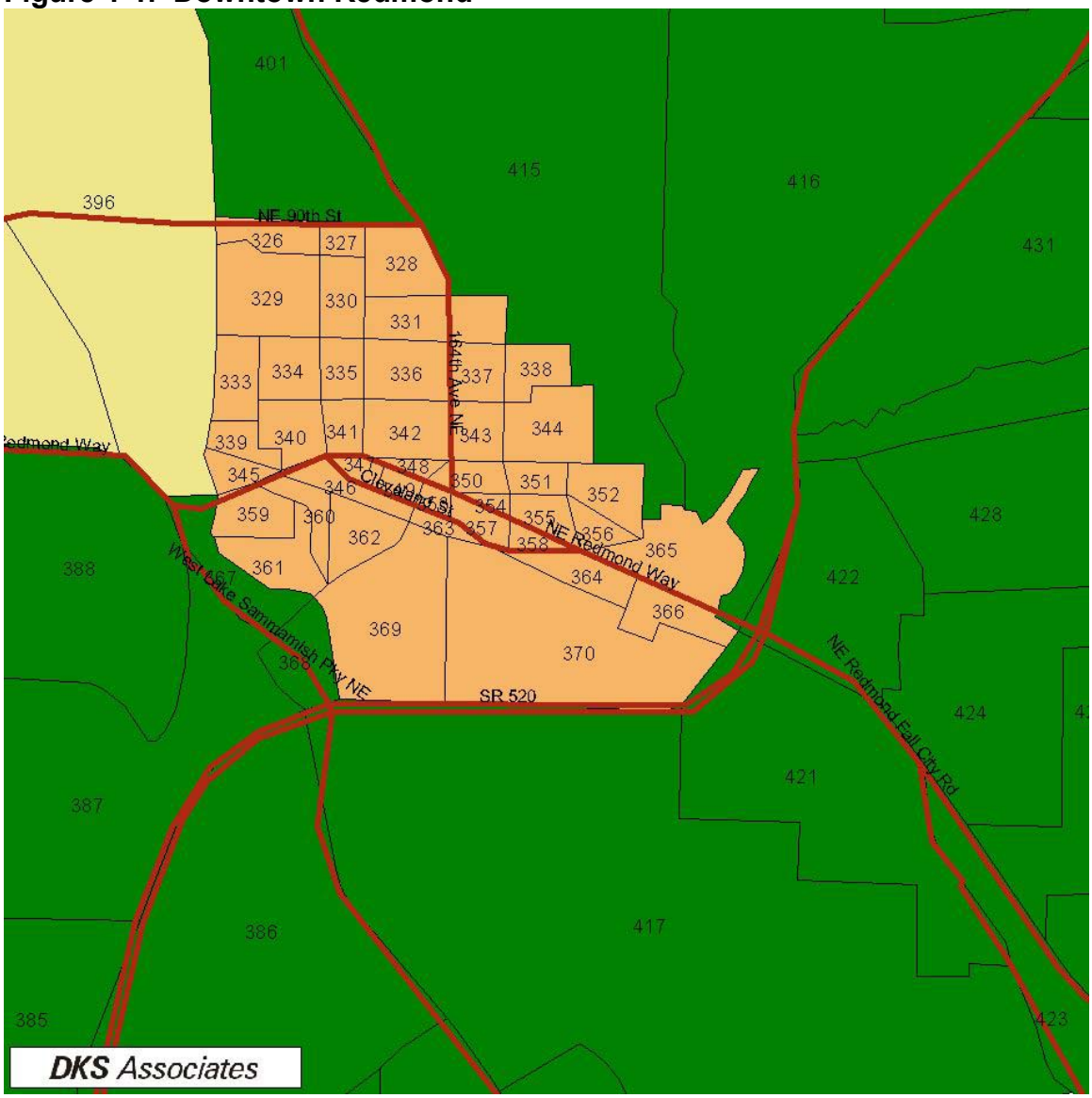
Downtown Redmond

1.0 Setting and Physical Characteristics

1.1 Location

The study area includes the "officially designated" downtown area as noted in the Redmond Comprehensive Plan. It extends from Bear Creek Parkway and Redmond Town Center on the south to NE 90th St on the north, and from 166th Ave NE on the east to the Sammamish River Slough on the west. The case study area boundaries are illustrated in Figure 1-1.

Figure 1-1. Downtown Redmond



1.2 Land Use Character and Mix

Redmond's Downtown is a regionally designated Urban Center and is recognized as such in all relevant local, regional policy, planning and programming forums.

The City's vision for Downtown has been stable since the mid 1980's and through many updates since then.[1] As the financial and business center of the city, Downtown Redmond is dominated by office and retail uses. In addition, the area serves as a regional retail outlet with a large shopping center and other retail stores and residential housing. It is a major employment center, and this central role is expected to be reinforced by continual growth in office development. The Downtown area exhibits relatively high employment and residential densities, with those densities planned to increase significantly as growth occurs. Currently, residential uses are allowed on the upper floors of every downtown district. [2]

Downtown Redmond includes the land designated as the City Center and is guided by the City Center Policies in the City's Comprehensive Plan. The City Center area is recognized as the City's primary center in the Comprehensive Plan. City Center development regulations allow property owners the option of making payments to a fund to provide public parking rather than providing parking on-site in part of Downtown.[3] The City Center development regulations also give a floor area bonus for contributions to the parking fund.

1.3 Access to Freeways and State Facilities

SR 520 is the only freeway providing access to and through the City of Redmond. It provides access to employment and residential areas in Bellevue and Seattle. It also provides access to I-405 for connections on the east side of Lake Washington. SR 520 ends near the intersection with SR 202 and merges into Avondale Ave NE, which continues northeast eight miles to Woodinville-Duvall Road. SR 520's major exits to downtown Redmond are at the West Lake Sammamish Pkwy, SR 202 (Redmond Way), and Avondale Way/Union Hill Road.

1.4 Roadway Network

The transportation elements of the City's 1995 Comprehensive Plan established a hierarchy of streets serving the City. This hierarchy is based on the desired function of the facility to serve local traffic, through traffic, or a combination of local and through traffic. The principal arterials provide access to/from the City and the freeways and connect activity centers. The minor arterials provide connections to the principal arterials and connections with higher density activity centers. These connections are supplemented with a system of collector arterials. The City's planned arterial system includes streets that are up to 5 lanes wide.

In Downtown Redmond, the principal arterials are as follows:

- **SR 908**. This highway provides the main access from Redmond to Kirkland providing access to the west and access to I-405 at Kirkland. This roadway is a principal arterial and is also known as NE 85th Avenue.

[1] The following information was taken from the Redmond Comprehensive Plan posted on-line at MSRC website.
[2] Comment taken from the Connecting Redmond Website; Key Issues – Land Use.
[3] Cited in the Comprehensive Plan, page 51.

- **SR 202**. SR 202 is a principal arterial that links Redmond with Snoqualmie Falls to the south and Woodinville to the north. SR 202 is also part of Redmond Way from SR 520 to 164th Ave NE; and part of 164th Ave NE from Redmond Way to NE 85th Street.
- **NE Redmond Way** is a one-way couplet with Cleveland Street serving westbound traffic. NE Redmond Way becomes SR 202 east of intersection 164th Avenue NE (SR 202) to its terminus at E. Lake Sammamish Pkwy NE (SR 202 then becomes known as the Redmond Fall City Road). To the north, NE Redmond Way becomes SR 908 at the intersection with W. Lake Sammamish Parkway. SR 908 connects downtown Redmond with Kirkland; at the city limits with Kirkland (132nd Ave NE), NE Redmond Way becomes known as NE 85th Avenue.
- **Redmond-Woodinville Road NE** is a principal arterial, also known as State Route 202 connecting the City of Woodinville with Redmond. At 85th Street, the roadway becomes also known as 164th Avenue NE.
- **NE 90th Street** is an east-west principal arterial linking the Woodinville Redmond Road NE to Willows Road.
- **160th Ave NE** is a north-south principal arterial from Redmond Way NE linking high density housing units in the north part of Redmond to downtown Redmond.
- **Avondale Road,** a principal arterial**,** starts at the end of SR 520 and carries traffic to the east linking to Union Hill Road, Novelty Hill Road and Woodinville-Duvall Road

The minor arterials in Downtown Redmond include NE 85th Street; Leary Way NE, Bear Creek Parkway; Avondale Way. All these roadways serve as linkages between principal arterials, and as such carry high volumes of traffic; many as high as on nearby principal arterials.

The collector arterials in Downtown Redmond include 158th Ave NE, 161st Ave NE, NE 83rd Street, NE 80th Street, and NE 79th Street.

1.5 Transit Services

1.5.1 Existing Transit Service

The existing and future transit service levels are discussed in the following sections.

Route 220 services Redmond P&R, Redmond Town Centre, Rose Hill, South Kirkland P&R, Bellevue. This route operates five days a week.

Route 230 services Kingsgate P&R, Totem Lake, Rose Hill, 124th Ave NE, NE 85th St, Kirkland Transit Center, Lake Washington Blvd., South Kirkland P&R, Bellevue Way NE, Bellevue Transit Center, NE 8th St, Crossroads, Overlake, Microsoft, 156th Ave NE, SR-520, Redmond P&R. This route operates seven days a week.

Route 232 services Duvall, Cottage Lake, English Hill, Redmond P&R, SR-520, I-405, Bellevue, Bellevue Transit Center. This route operates weekdays with a 15 minute AM peak hour headway.

Route 233 services Avondale Rd NE & Avondale Pl NE, Bear Creek P&R, 148th Ave NE, 156th Ave NE, Microsoft, Overlake Transit Center, Overlake, Bell-Red Rd, Bellevue Transit Center. This route operates on weekdays with a 30 minute AM peak hour headway and on Saturdays.

Route 249 services Redmond P&R, West Lake Sammamish Pkwy, Sammamish Viewpoint Park, Overlake, Overlake P&R, NE 20th St., 116th Ave. NE, Bellevue. This route operates Saturdays and weekdays with a 30 minute AM peak hour headway.

Route 250 services Redmond P&R, West Lake Sammamish Parkway, Sammamish Viewpoint, Overlake, Overlake P&R, Montlake, Downtown Seattle. This route operates weekdays only during the peak period with a 25 minute AM peak hour headway.

Route 251 services Kirkland Transit Center, Houghton P&R, Redmond P&R, Bear Creek P&R, Cottage Lake, Woodinville P&R, Bothell, UW Bothell Campus. This route operates weekdays and Saturdays; with a 30 minute AM peak hour headway on the weekdays.

Route 253 services Bear Creek P&R, Redmond P&R, Redmond Civic Center, 148th Ave NE, Overlake, Overlake P&R, Crossroads, Bellevue Transit Center. This route operates seven days a week and has a 40 minute AM peak hour headway.

Route 254 services Kirkland Transit Center, Houghton P&R, Redmond P&R, Education Hill. This route operates seven days a week with 40 minute headway in the AM peak hour.

Route 265 services Downtown Seattle, SR-520 Freeway Stops, Houghton P&R, Rose Hill, and the Redmond P&R. This route operates weekdays during the peak periods only with 20 minute headway during the AM peak hour.

Route 266 services Bear Creek P&R, Redmond P&R, 148th Ave NE, SR-520 Freeway Stops, Downtown Seattle (tunnel). This route operates weekdays and has 15 minute AM peak hour headway.

Route 291 services Kingsgate P&R, N.E. 132nd St., Willows Rd. employment centers, Redmond Civic Center, Redmond P&R, and the Redmond Town Center. This route operates peak period only weekdays with a 30 minute AM peak hour headway. DART service is available during the day.

ST Route 540 services Bear Creek P&R, Redmond P&R, NE 85th St, Kirkland Transit Center, Northwest College, South Kirkland P&R, SR-520 Freeway stops, and the University District. Sound Transit operates this route with seven day a week service. The weekday headway in the AM peak hour is 30 minutes.

ST Route 540 services Downtown Seattle, SR-520 Freeway stops, Overlake Transit Center, and the Redmond P&R. The route is operated by Sound Transit weekdays with a 15 to 20 minute AM peak hour headway.

Route 922 services Carnation, NE Ames Lake Rd, Bear Creek P&R, and the Redmond P&R with connecting buses to and from Bellevue & Seattle and to the Redmond DART service. This route operates on weekdays with one route each direction in the peak period.

Route 929 services North Bend, Snoqualmie, Snoqualmie Falls, Fall City, Carnation, Stillwater, Duvall, W Snoqualmie Valley Rd NE, Novelty Hill Rd, and the Redmond P&R. This route operates weekdays with seven daily buses (four buses every 3 ½ hours); with no service in the AM peak hour.

There are two park-and-ride lots in Downtown Redmond. One is located in the center of town, creating additional traffic on local streets to access regional transit routes. It is located between 161st Ave NE and 162nd Ave NE, at NE 81st Street. The second park-and-ride lot is located just outside the study area, at NE Union Hill Road and 178th Ave NE.

The downtown park-and-ride lot also serves as a transit station. This is an unusual arrangement creating some conflicts of use. Generally, park-and-ride facilities are located on the outskirts of a city and function as an access point to regional transit services. This way, the park-and-ride actually intercepts vehicles that may be headed onto congested downtown streets. However, because of its downtown location, the Downtown Redmond park-and-ride actually forces cars onto downtown streets.

On an average weekday, there are currently about 1,900 transit trips[4] to and from Downtown Redmond. Of these, 28 percent are commuter trips for work and 72 percent are for other purposes. These transit trips amount to only 1 percent of all vehicle trips to, from and within Downtown Redmond. Transit's share of vehicle trips increases to 4 percent when counting only the work commute trips.

Of those 1,900 transit trips to, from, and within downtown Redmond, 34 percent are from origins or destinations within Redmond, 26 percent have origins or destinations elsewhere on the Eastside, and 40 percent have origins or destinations elsewhere in the Puget Sound region.

Downtown Redmond is currently served by:

- 13 all day routes/route segments
- 6 peak hour only routes
- 25 bus vehicle trips arrive in Downtown Redmond in the AM peak hour
- 33 bus vehicle trips depart from Downtown Redmond in the AM peak hour

The existing transit service to, from, and within Redmond is fairly good during the peak commuting hours in the morning and the afternoon if you are going to the regional centers (i.e. Bellevue or Seattle). Much of the service is focused on leaving Redmond in the morning and returning in the afternoon. Service during the middle of the day is much less frequent, and service to destinations other than the regional centers is generally not timely or convenient. One obvious difficulty is the lack of coordination between routes, forcing passengers to have long waits for connecting buses.

In the Central Business District, there are 16 bus routes with more than 2255 passengers each day. Nearly 57 percent of the riders use the downtown park-and-ride (1284 passengers/daily). Other stops with more than 50 daily riders are NE 83rd St/161st Ave NE (308); three stops along NE 85th St at 160th , 161st, 162nd Ave NE; West Lake Sammamish Parkway NE/Leary Way (55) and Cleveland St/167th Ave NE (54).

There are 3 main peak hour only routes (2 minor routes): Metro 265, Redmond via Houghton P&R (Kirkland) to Downtown Seattle (12 daily, 6 peak period); Metro 266 Redmond via 148th Ave NE to Downtown Seattle(30 daily, 15 peak period); Sound Transit 545, Redmond to Seattle Express (26 daily, 13 peak period); Metro 929 – only one each direction peak service into downtown Seattle, and custom school route (997). ST 540 offers 30-minute headways for service the UW of Washington all day.

1.5.2 Forecast for 2030 Transit Service

The PSRC/Trans-Lake model was used to forecast the number of transit routes in the case study area for both the base and future conditions as shown in Table 1-1 and Table 1-2.

[4] Redmond City Council Meeting, November 13,2001; presentation slides

Table 1-1. Number of Routes

Time Period	Year	Rail	Ferry	High Bus	Low Bus	Total
AM Peak	2000				21	**21**
	2030			16	5	**21**
Mid-Day	2000				22	**22**
	2030			10	1	**11**

Table 1-2. Frequency of Service

Time Period	Year	Rail	Ferry	High Bus	Low Bus	Total
AM Peak	2000				34	**34**
	2030			72	10	**82**
Mid-Day	2000				33	**33**
	2030			40	2	**42**

1.6 Parking Supply, Availability and Price

Mirai Associates conducted an inventory of parking in Downtown Redmond in the summer of 2002. The inventory indicated that a total of 14,017 off-street, non-residential spaces existed in Downtown Redmond. In the previous summer, 2001, the City of Redmond counted about 1178 on-street parking spaces. This adds up to15,195 parking spaces available downtown, about 5000 of which are on the Town Center site. Table 1-3 indicates the distribution of parking for three types of businesses in the downtown area.

Currently approximately two-thirds of the available office parking is located in the Redmond Town Center area. The largest retail zones are located in the Redmond Town Center area and to the north end just south of 90th Street. The institutional category includes the library, all community centers, city government offices, all education centers, and auto body repair where very little customer and employee parking spaces were available

Table 1-3. Parking Supply and Demand by Type

	Parking Type			
	Retail	Office	Other	Total
2000 Supply	8,335	4,183	1,245	**13,763**
2000 Demand	3,773	2,633	943	**7,349**
2000 D/S Ratio	0.45	0.63	0.76	**0.53**
2030 Supply				**24,266**
2030 Demand				**14,018**
2030 D/S Ratio				**0.58**

During the current update of the Comprehensive Plan, employers and merchants have raised concern that the parking supply is inadequate for employees and customers. There are about 5,000 to 6,000 workers and less than 3,000 residents in the downtown area.[5] Currently, many private lots are marked "Only for use by customers of my business," which discourages visits to multiple stores. The ongoing *Downtown Redmond* study is considering four approaches to managing parking in the area. One option is to build a major structured public parking lot, which has the advantage of allowing a shopper or

[5] Comment taken from the Connecting Redmond Website (update of the Comprehensive Plan); Key Issues – Parking; (www.ci.redmond.wa.us/intheworks/mts/)

customer to park the car once and visit several places without moving the car. Another approach being considered is to increase parking requirements for new developments in order to meet peak demand. Parking management is also being examined; on-street parking near stores and businesses could be reserved for short visits (e.g. 2 to 4 hours) and employee parking located further from the businesses in common lots. Another improvement being considered is to add clear signage about the location of existing public parking and improving the pedestrian system so that walking 2 to 3 blocks to a variety of businesses is not so daunting.

All parking in the downtown study area is free. In addition, no permit parking exists, but most lots are restricted to either customers or employees, as noted previously. When collecting parking costs, the PSRC/Trans-Lake baseline model assumes a relatively high parking cost in many parts of the region. Then, in the implementation of the model, the parking costs are lowered for many users to reflect that many users don't pay for the full price of parking. In the implementation of TEEM, the forecast parking costs were assumed to be one-half of the baseline PSRC/Trans-Lake model to account for people whose parking costs are subsidized. The resulting parking costs are shown in Table 1-4.

Table 1-4. Average Parking Costs from the PSRC/Trans-Lake Model

	Parking Costs	
	2000	2030
Drive Alone	$0.00	$2.25
Carpool	$0.00	$0.33
Vanpool	$0.00	$0.00

1.7 Pedestrian and Bicycle Facilities

The City of Redmond has produced a Redmond Bicycling Guide for the City that identifies higher traffic streets (generally with either wide shoulders, wide curb lanes or bike lanes); pedestrian paths; lower traffic streets (most are two lane streets with low speeds); off street paths; and uphill grades.

Marked crosswalks are located at most intersections within the downtown and at all signalized intersections. Crosswalks at signalized intersections have pedestrian signals including pedestrian walk/don't walk signals. Many of these signals require pedestrian activation by push buttons. The City recently adopted standards that do not allow mid-block crosswalks on arterials; the City is in the process of removing existing mid-block crossings or adding traffic signals at the crossings.

The city street standards require sidewalks on all new or reconstructed streets. The widths of the sidewalks vary depending on the classification of the street and type of land uses. In the downtown area the sidewalk network is nearly complete, with just a few unconnected links. For example, there are no sidewalks along the undeveloped land near 161st Ave NE and NE 83rd Street near the park-and-ride, but the rest of the sidewalk network is complete in this area.

Within the Downtown case study area, bike lanes (Class 2) exist on West Lake Sammamish between SR 520 and Marymoor Park, along Leary Way to W. Lake Sammamish from the intersection with the Sammamish River Park Trail. The Sammamish River Park Trail is a multi-use trail that originates in Marymoor Park and runs along the Sammamish River. This trail continues north of the City limits and eventually connects to the Burk-Gilman Trail north of Lake Washington. The Sammamish Trail is a Class 1 bicycle facility extending through the middle of the downtown area alongside the river. The City recently completed a detached Class 1 extension off the Sammamish Trail just south of and parallel to Leary Way. This trail, called the Bear Creek Trail, leads to the Redmond Town Center area.

Bicycle lanes (Class II) are also marked on the following east/west streets in the study area: NE 83rd Street, NE 85th Street, NE 95th Street. Marked lanes are on the following north/south streets: 160th Ave NE (to NE 90th Street) and on 161st Ave NE.

2.0 Population and Employment Characteristics

2.1 Population

As shown in Table 2-1, the downtown area is 0.8 sq miles with 1,397 residents; population is forecast to be three times larger by 2030. Much of this population growth is expected to come through infill development as opposed to greenfield development.

Table 2-1. Background Model Information

	2000	2030
Size (sq. miles)	0.80	
Population	1,397	3,965

2.2 Employment

The retail and office employment will both continue to increase; retail employment will double while the number of people engaged in office work downtown will nearly triple. In terms of jobs, this equates to an increase of over 20,000 people working in the downtown area in 2030 compared to the 8,500 people in 2001. Employment data from the PSRC/Trans-Lake model is shown in Table 2-2. Table 2-3 illustrates that the greatest numbers of businesses employ less than 50 people; the forecasts predict a similar situation in 2030. With so many employees belonging to small employers (<50 employees), any successful program in Downtown Redmond will need to be tailored to these users.

Table 2-2. Employment by Type

	Model Employment	
	2000	2030
Retail	3,363	6,103
Office	4,958	14,015
Other	258	190
Total	**8,579**	**20,308**

Table 2-3. Employee Data by Size of Employer

	Number of Employees				Grand Total
	0-49	50-99	100-499	500+	
2000	5,743	1,456	1,381	0	8,579
2030	13,593	3,446	3,269	0	20,308

2.3 Characteristics by Transportation Analysis Zone (TAZ)

Table 2-4 lists the transit level of service definitions that were used for each TAZ, while Table 2-5 illustrates the changes in land use characteristics that are expected for each TAZ in the study area. Both the transit service and the density of Downtown Redmond are expected to go from medium/low to high in nearly all TAZs. The mix of uses is generally expected to stay at medium. Table 2-6 gives the

population, employment and trips by local area TAZ for the study area. These characteristics were summarized in earlier sections, and in general, they show a major increase in population and employment. Table 2-7 shows that in the future nearly all residents and workers will be better served by transit.

Table 2-4. Transit Level of Service Definitions

Transit Service	Definition
High 1	At least one (1) rail route or five (5) or more high frequency routes
High 2	Four (4) high frequency routes or at least fifteen (15) total routes
Medium 1	Three (3) high frequency routes or at least ten (10) total routes
Medium 2	Two (2) high frequency routes or at least five (5) total routes
Low 1	At least two (2) total routes
Low 2	Less than two (2) total routes

Table 2-5. Land Use Characterizations

	Transit Service		Mixed-Use		Density	
TAZ	2000	2030	2000	2030	2000	2030
326	Medium 2	High 2	High	Medium	Low	Medium
327	Medium 2	Medium 1	Medium	Medium	Medium	High
328	High 2	High 1	High	Medium	Low	Low
329	Medium 2	High 2	Medium	Medium	Low	High
330	Medium 1	High 1	Medium	Medium	Low	Medium
331	High 2	High 1	High	High	Medium	High
333	High 2	High 1	Medium	Medium	High	High
334	Medium 1	High 1	Medium	Medium	Medium	High
335	High 2	High 1	Medium	Medium	High	High
336	High 2	High 1	Medium	Medium	Low	High
337	High 2	High 1	Medium	Medium	Low	High
338	High 2	High 1	High	Medium	Medium	High
339	High 2	High 1	Medium	Medium	Low	High
340	High 2	High 1	Medium	Medium	Low	High
341	High 2	High 1	Medium	Medium	Medium	High
342	High 2	High 1	Medium	Medium	Low	High
343	High 2	High 1	Medium	Medium	Medium	High
344	High 2	High 1	Medium	Medium	Low	Low
345	High 2	High 1	Medium	Medium	Medium	Medium
346	High 2	High 1	Medium	Medium	Low	High
347	High 2	High 1	Medium	Medium	Medium	High
348	High 2	High 1	Medium	Medium	Medium	High
349	High 2	High 1	Medium	Medium	High	High
350	High 2	High 1	Medium	Medium	Low	High
351	High 2	High 1	Medium	Medium	High	High
352	High 2	High 1	Medium	Medium	Low	Low
353	High 2	High 1	Medium	Medium	Medium	High
355	High 2	High 1	Medium	Medium	Low	High
356	Medium 1	High 1	Medium	Medium	Low	Medium
357	High 2	High 1	Medium	Low	Medium	High
358	High 2	High 1	Medium	Medium	Medium	High
359	Medium 1	High 1	Medium	Medium	Low	Medium
360	High 2	High 1	Medium	Medium	Medium	High
361	Medium 1	High 1	Medium	Medium	Low	Medium
362	High 2	High 1	Medium	Medium	Low	Low
364	High 2	High 1	Medium	Medium	Medium	Medium
365	Medium 1	High 1	Medium	Medium	Medium	Medium
366	Medium 1	High 1	Medium	Medium	Low	Low
369	High 2	High 1	Medium	Low	Medium	High
370	High 2	High 1	Medium	Medium	Medium	High

Table 2-6. Population, Employment and Trips

		Population and Employment						Home Based Work Person Trips			
	Area	Population		Retail Employment		Other Employment		Productions		Attractions	
TAZ	sq. miles	2000	2030	2000	2030	2000	2030	2000	2030	2000	2030
326	0.014	254	454	0	0	0	0	355	421	34	42
327	0.007	0	0	129	270	0	0	0	0	156	336
328	0.035	1	2	196	222	20	35	2	2	260	314
329	0.040	0	0	0	0	339	917	0	0	405	978
330	0.016	69	123	90	113	7	0	96	114	126	152
331	0.017	0	0	48	81	197	416	0	0	277	538
333	0.017	0	76	0	38	422	711	0	70	469	801
334	0.017	229	482	19	60	134	328	320	447	203	464
335	0.012	75	235	5	33	214	386	104	218	253	468
336	0.023	129	441	22	34	112	336	181	410	170	443
337	0.014	0	0	50	160	69	144	53	282	142	362
338	0.014	333	687	0	0	0	0	157	304	15	29
339	0.010	0	8	65	192	0	67	0	26	79	284
340	0.017	0	0	151	344	0	0	0	0	182	390
341	0.010	0	15	71	95	45	119	0	49	137	226
342	0.023	36	130	54	97	125	339	85	413	213	474
343	0.014	43	361	73	164	139	213	15	160	249	424
344	0.029	5	56	0	0	0	50	2	25	2	118
345	0.008	0	0	0	0	100	131	0	0	111	125
346	0.012	0	3	76	179	43	207	0	9	142	402
347	0.005	0	4	52	149	0	176	0	14	63	338
348	0.004	0	0	46	62	18	61	0	0	76	128
349	0.005	2	0	46	69	64	132	4	0	128	204
350	0.010	8	5	68	165	0	156	13	16	87	340
351	0.009	14	11	0	37	254	694	32	35	285	707
352	0.018	82	200	17	16	21	11	181	635	61	91
353	0.004	1	0	37	64	7	43	2	0	54	115
355	0.011	4	10	61	228	17	338	7	31	93	584
356	0.008	0	2	12	56	0	84	0	7	17	147
357	0.009	0	0	133	184	0	87	0	0	161	292
358	0.006	0	3	66	140	40	176	0	10	125	328
359	0.016	0	246	95	73	54	0	0	780	180	160
360	0.011	0	0	56	216	95	379	0	0	183	635
361	0.022	102	82	12	83	61	206	240	260	109	331
362	0.018	0	0	3	4	28	26	0	0	37	42
364	0.016	0	2	181	252	0	52	0	5	219	336
365	0.043	9	6	376	656	65	84	19	19	530	827
366	0.019	0	0	118	173	0	0	0	0	144	196
369	0.079	0	103	53	109	1,265	2,131	0	326	1,576	2,308
370	0.135	0	219	883	1,286	1,260	4,971	0	694	2,469	6,268

Table 2-7. Population Employment by Transit Service

		Transit Service Level						
		High 1	High 2	Medium 1	Medium 2	Low 1	Low 2	Total
Transit Service	2000 Base	0	30	7	3	0	0	40
	2030 Base	37	2	1	0	0	0	40
Population	2000 Base	0	734	408	254	0	0	1,397
	2030 Base	3,511	454	0	0	0	0	3,965
Total Employment	2000 Base	0	7,067	1,044	468	0	0	8,579
	2030 Base	19,121	917	270	0	0	0	20,308

3.0 Travel Behavior Inventory

The following sections were developed from information contained in the Downtown Redmond Neighborhood Plan and the PSRC/Trans-Lake model.

3.1 Person and Vehicle Trips

The person and vehicle trips for the study are employees and residents are illustrated in Table 3-1. These were developed from information contained in the PSRC/Trans-Lake model. As with many of the case study areas, Downtown Redmond is expected to see a great increase in both person trips (142 percent) and vehicle trips (150 percent). However, the number of vehicle trips is not expected to increase as rapidly as the number of person trips due mostly to the significant increase in transit service that is forecast for the area.

Table 3-1. Commute Trips

	Person Trips		Vehicle Trips	
	2000	2030	2000	2030
Study Area Employee	10,220	21,746	7,273	16,081
Employed Residents	1,867	5,780	1,612	4,050

For existing conditions, approximately half of the trips into downtown during the PM peak have destinations in the downtown area. Trips enter downtown from many directions, more than many communities of similar size to Redmond. More than 52,000 people work in Redmond, according to the Greater Redmond Chamber of Commerce. Between residents and workers, the volume of motorists on the streets is strained. The Redmond Way-Cleveland couplet carries about 32,000 cars daily. Half of that traffic is downtown-bound; the other half is motorists passing through. Leary Way NE, which connects the downtown area to SR 520, has nearly 31,000 cars daily. The two lanes of 164th Avenue NE (SR 202) carry nearly 25,600 cars daily.

3.2 Average Vehicle Miles Traveled

The vehicle miles traveled to work in the Downtown Redmond are by employees is illustrated in Table 3-2. The number of miles by mode range from 15 to 19 miles; a small difference compared with many of the other case study area. The reason for the small distance of the measured vanpool users is unclear.

Table 3-2. Average Vehicle Miles Traveled by Mode

Mode	Vehicle Miles Traveled to Work
Drive Alone	16
Carpool	19
Vanpool	17
Transit	15
Non-Motorized	0

3.3 SR 520 Corridor Trips

About 2.2 percent of the PM Peak vehicle trips to and from Downtown Redmond cross the SR 520 Bridge. As shown in Table 3-3, a higher percentage of vehicle trips entering Downtown Redmond use the bridge, although trips leaving the study area contribute a higher total number of vehicles to the bridge traffic. This is mainly the result of the fact that Downtown Redmond is a much larger employment center than residential hub. At 1,945, Downtown Redmond trips comprise 4.7 percent of total bridge traffic during the PM peak period.

Table 3-3. Study Area Vehicle Trips Related to SR 520 Corridor

	From the Study Area	To the Study Area	Total Trips
PM Peak Trips	76,980	12,280	89,259
Study Area Trips Crossing SR 520 Bridge	1,049	896	1,945
Percent of Case Study Trips Crossing SR 520 Bridge	1.4%	7.3%	2.2%

3.4 Average Vehicle Occupancy for Commute Trips

The average vehicle occupancy for vehicle trips is shown in Table 3-4.

Table 3-4. People per Vehicle

	Average Number of People
Drive Alone	1.00
Carpool	2.08
Vanpool	8.76

3.5 Historical CTR Mode Shares by Year

In this study area, carpooling has been the mode of choice for those CTR employees that use alternatives to the SOV, as shown in Table 3-5.

Table 3-5. Mode Share for CTR Employers

	Number of Employers	Mode Choice					
		Drive Alone	Carpool	Vanpool	Transit	Non-Motorized	Other
1993	3	87%	10%	0%	0%	2%	1%
1995	7	87%	11%	0%	0%	1%	0%
1997	10	83%	14%	1%	1%	1%	0%
1999	11	78%	19%	1%	0%	1%	0%
2001	14	80%	15%	3%	1%	1%	0%

4.0 History with TDM and Land Use Strategies

The Greater Redmond TMA is a private, not-for-profit Transportation Management Association that provides transportation services, commute trip reduction planning, and education to a consortium of major employers. The GRTMA has a current membership of 179, representing about 55,000 employees. Among the GRTMA's efforts is a comprehensive website with specific, detailed information on alternative commuting modes. In addition, the GRTMA operates Ridequest.com, a specialized ridematching service aimed specifically at commuters who work in Redmond. Redmond's R-Trip program, essentially a head tax on employers, generates revenue that goes back into TDM programs.

Redmond's city code requires all new commercial (office or industrial) developments over a certain trip generation threshold to implement TMPs. The TMP requirements are generally similar to requirements for CTR affected employers. Addendum A includes a description of the existing TMPs in Downtown Redmond.

Redmond's land use codes for Downtown also focus on creating a compact, mixed-use, pedestrian-friendly environment. Typical land use code requirements include direct pedestrian access and circulation (the City requires mid block connections or new public streets on a case-by-case basis in order to break up the street grid), pedestrian-oriented building entries, buildings that are built to the front lot line, covered walkways, bicycle facilities, and underground (or behind-the-building) parking. There is also a design review process in place for all projects in the City with the exception of single-family residential.

Table 4-1 lists the percent of Downtown Redmond employers who stated that they either did or did not offer a TDM program. The following table was developed using information from the Washington State CTR database.

Table 4-1. Percentage of CTR Employers Who Offer a Program

		Year			
		1995	1997	1999	2001
CWW Program	Yes	0%			
	No	100%			
Telecommuting	Yes	0%	14%	44%	55%
	No	100%	86%	56%	45%
Flex Time	Yes	0%	71%	89%	91%
	No	100%	29%	11%	9%
Guaranteed Ride Home	Yes	0%	0%	50%	73%
	No	100%	100%	50%	27%
Ridematching Services	Yes	33%	0%	56%	55%
	No	67%	100%	44%	45%
Shuttle Service	Yes	100%			
	No	0%			
Bike Subsidy	Yes	0%	0%		
	No	100%	100%		
Walking Subsidy	Yes	0%		0%	9%
	No	100%		100%	91%
Carpool Subsidy	Yes	0%		0%	18%
	No	100%		100%	82%
Vanpool Subsidy	Yes	0%		56%	55%
	No	100%		44%	45%
Transit Subsidy	Yes	0%	100%	44%	45%
	No	100%	0%	56%	55%
Ferry Subsidy	Yes	0%		11%	18%
	No	100%		89%	82%
Gen. Transportation Allowance	Yes	0%		33%	
	No	100%		67%	
Clothes Locker	Yes	100%		78%	82%
	No	0%		22%	18%
Uncovered Bicycle Parking	Yes	0%		67%	55%
	No	100%		33%	45%
Covered Bicycle Parking	Yes	100%		38%	55%
	No	0%		63%	45%
Passenger Loading Area	Yes	100%		0%	18%
	No	0%		100%	82%
Shower Facilities	Yes	0%		67%	73%
	No	100%		33%	27%

Addendum A.
Transportation Management Program Summaries

In Downtown Redmond there are currently two TMP programs: Redmond Town Center and the Lake Washington School District (LWSD). Details are provided in the following summaries.

Transportation Management Program – Redmond Town Center

The peak periods used in the TMP are the hours of 7:00 to 9:00 am and 4:00 to 6:00 pm, Monday through Friday. The program was implemented prior to the August 1997 opening of Redmond Town Center.

The goal was to enact measures to reach 30 percent employee participation in commuting to work in commuter modes other than SOV's during the am and pm peak hours within 2 years of opening.

The strategy

1. Designate carpool-parking stalls.
    - Preferential parking was signed for every existing car/vanpool along with three extra spaces until they reach 10 percent of employee parking spaces.
    - Preferential spaces will be reserved for registered carpool/vanpools from 6:00 am to 10 am Monday through Friday.
    - 'Registered' carpools/vanpools will be issued a decal, to be displayed in the vehicle being used.
    - Security officers of Town Center will monitor and enforce the use of these parking stalls.
2. Bicycles – Town Center buildings are to be equipped with bicycle parking facilities that meet or exceed demand. Additional parking equipment will be added as necessary.

The Incentives

Redmond Town Center will provide for incentives to reduce SOV trips—initial incentives considered were transit subsidies at a minimum value of 25 percent for two-zone transit riders, non-SOV commuter bonus or award plans of equivalent value and similar programs. The incentive plan was to be implemented within six months of opening of the Center.

Annual Program Review

A Program Review is to be completed annually, along with annual submittal of CTR report of tenants with over 100 employees to the City.

Annual Required Report: (September 10, 2001 Report). Reports a 31 percent employee participation in commuting to work in commuter modes other than SOV's during the am and pm peak hours (this included credit given for moving drive alone trips outside of peak hours). Redmond Towne Center shows 46 carpoolers; 32 who either walk or ride a bike to work; and 14 who ride the bus.

Note that merchant hours in the Towne Center are 10 am to 8 pm and fall outside of the peak hours. The largest tenant AT&T Wireless Service falls under the CTR program and reports specific data there. Neighboring businesses not under the Towne Center TMP include REI (17 employees use some form of

alternative transportation); as do ten employees of Lake Washington SD resource center; and one employee at the Marriott Hotel walks or rides a bike to work.

Lake Washington School District Resource Center

Located in the Town Center Development in Downtown Redmond, the school district TMP follows:

The goal –The one-year goal was to achieve and maintain a commute pattern (7 to 9 am; 4 to 6 pm) whereby at least 25 percent of the Lake Washington School District Resource Center employees commute to work in modes other than SOVs. The two-year goal was for 30 percent of employees to be included. (Initially 95 employees)

Implementation date – September 1997.

The strategy – To appoint a transportation coordinator to administer and promote the alternatives to SOV with the following:

- Establish a permanent transport information center with Metro ride match forms, bus schedules, bicycling information and other GRTMA information.
- Annually distribute forms and other GRTMA information to employees
- Provide guaranteed ride home for registered "rideshare" employees
- Provide nine preferential parking spaces for registered employee carpools in designated Resource Center parking areas (this represents 10 percent of parking spaces allotted to employee parking). The number of carpool spaces will be reviewed and revised at least annually.
- Provide a minimum of eight bicycle-parking racks, consistent with the ratio of .075 racks for each employee.
- Join the Greater Redmond Transportation Management Association (GRTMA)

Incentives

LWSD does not provide financial incentives to employees for rideshare programs; states this is against district policy.

Parking Charges

LWSD does not charge for parking,

Reporting

Conduct employee transportation surveys annually until goals are met, then biennially or as agreed upon with the City. Annually prepare a report on RCTMP activities, survey results and progress toward meeting the RCTMP goals.

Annual Required Report: (**Oct 26, 2001 Report**). Reports the building has 138 employees, 112 of which are employed full time year round. The CTR survey was distributed to 130 employees; 41 were returned for a 31 percent rate. (No information given on what the surveys revealed.)

Reports maintaining a transportation information center in the staff lounge; giving a brochure describing commute alternatives program to all new hires in the building; distributing GRTMA information to all employees; reserves seven carpool and vanpool spaces in parking lot; provides seven bicycle racks

located at the rear employee entrance, one at the rear visitor entrance and one at the front entrance for a total of nine bike racks; there are two showers and eight lockers to accommodate employees who bike, jog, or walk. In addition, the Resource Center participated in March 2000 and 2001 Smart Move Campaigns, Bike to Work Day in May, Summer Ridequest Campaign, Rideshare Week, and their own "One Day-Two for One" campaign in April. During the summer month, all year employees are given the opportunity to have a compressed workweek to work four ten-hour days. Not all employees choose to have the same day off.